



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,016	01/20/2004	Peter Cueli	CR-201-CIP	1873
27489	7590	06/28/2005	EXAMINER	
RALPH T. LILORE 371 FRANKLIN AVENUE THIRD FLOOR - PO BOX 570 NUTLEY, NJ 07110			CHAN, SING P	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/761,016	Applicant(s) CUELI, PETER	
	Examiner Sing P. Chan	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 and 54-62 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 54-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to: See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/22/05</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because the abstract is more than 150 words in length. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1- 26 and 54-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1, it is unclear what is the relationship between information and the solid radiation curable resin.
5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: peeling or not peeling said carrier layer away from said structure. Without such step it is unclear if there a transfer of the solid, previously unirradiated, radiation curable resin and the information.
6. Claim 16 recites the limitation "solid, radiation-curable resin" in line 1. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 18 recites the limitation " solid, radiation-curable resin " in line 2. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 1734

8. Claim 23 recites the limitation " solid, radiation-curable resin " in line 2. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 26 recites the limitation " solid, radiation-curable resin " in line 2. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 54 recites the limitation " solid, radiation-curable resin " in line 2. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 55 recites the limitation " solid, radiation-curable resin " in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 62 contains the trademark/trade name Phenoxy PKCP 67. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe caprolactone-modified phenoxy resin and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1734

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-3, 5-20, 22, 24-26, 54, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (U.S. 6,797,210) in view of Kay (U.S. 6,364,983) and Schmitz et al (U.S. 6,491,324).

Regarding claims 1, 2, 17, 18, and 19, Iijima discloses a method for transferring a film. The method includes providing functional film comprising a hard coating layer, a resin layer, a functional layer, and an adhesive layer on a support, i.e. carrier, (Col 9, lines 56-63) with the functional layer includes a magnetic layer (Col 9, line 67), or ferromagnetic layer (Col 10, line 1), the adhesive layer is formed by using ultraviolet rays curable resin in solution, coating film with the adhesive solution and drying to a solid without irradiating (Col 19, lines 6-14), providing an object article (Col 20, line 66 to Col 21, line 5), sticking the functional film onto the article by means of a laminator so that the adhesive layer is in contact with the article, radiating with UV rays to cure the adhesive, peeling off the carrier, and transferring the film to the article. (Col 25, line 66 to Col 26, line 4) Iijima discloses using a laminator to apply the film to the article, which inherently applies heat and pressure. In any event, using heat and pressure to laminate two structures together is well known and conventional as shown for example by Kay. Kay discloses a method of forming a security tape. The method includes laminating two structures with UV curable adhesive using UV ray and heat and pressure. (Col 4, lines 48-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate any two structures together with UV curable adhesive by using UV ray and heat and pressure as disclosed by Kay in the method of Iijima to provide a bonding with better chemical resistance and heat durability. (See Kay, Col 4, lines 52-54) Iijima as modified by Kay is silent as to providing information on the magnetic layer. However, providing information on the magnetic layer is well known and conventional as shown for example by Schmitz et al. Schmitz et al discloses a method of forming a safety document. The method includes providing a magnetic layer on the covering layer and forming characters in the magnetic layer or forming magnetic layer itself in the form of visually and/or machine recognizable characters, pattern, (Col 1, line 65 to Col 2, line 4) or in the form of a bar code (Col 2, lines 44-52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide information such as visual or machine recognizable characters or patterns in the magnetic layer as disclosed by Schmitz et al in the method of Iijima as modified by Kay to provide a security element for an article or object with increase forgery-proofness. (See Schmitz et al, Col 2, lines 65-67)

Regarding claims 3 and 20, Iijima discloses the adhesive is an epoxy type adhesive. (Col 19, line 1)

Regarding claim 5, Iijima discloses a release coating such as silicone releasing agent is applied onto the carrier, which is between the carrier and the information to be transferred. (Col 13, lines 21-28)

Regarding claim 6-8, Iijima discloses a hard coating on the carrier, which is inherently clear to allow for UV ray to pass in order to cure the adhesive layer and is between the release coat and the information to be transferred and the information layer is attached to the hard coat (Col 15, lines 52-57).

Regarding claim 9, Iijima discloses the carrier may or may not be subjected to release treatment (Col 9, lines 22-25), but is silent as to not peel the carrier from the functional film. However, not peeling the carrier from the transfer member or film is well known and conventional as shown for example by Schmitz et al. Schmitz et al discloses security element. The element includes a carrier, a separation layer, i.e. release coating, a cover layer, a magnetic layer, and a radiation curable adhesive (Col 4, lines 23-37), and in some cases to not provide a separation layer on the carrier, which leave the carrier on as a protective layer on the article such as document. (Col 4, lines 38-43)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to not peel the carrier from the transfer film or foil as disclosed by Schmitz et al in the method of Iijima as modified by combination of references to provide additional layer as a protective layer on the article. (See Schmitz et al, Col 4, lines 38-39)

Regarding claims 10, 11, 24, and 25, Iijima discloses the carrier includes polyester film such as polyethylene terephthalate (PET). (Col 12, line 62 to Col 13, line 5)

Regarding claims 12 and 22, Iijima is silent as to the temperature range for the heating the adhesive. However, heating the adhesive to laminate the adhesive to the substrate at a temperature of 100°F to 400°F is well known and conventional as shown for example by Kay. Kay discloses a heated roller for laminating two structures with UV curable adhesive at a temperature range of 140°C to 160°C, which corresponded to 284°F to 320°F (Col 4, lines 34-39), which will allow for transfer of the information film.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate the UV curable adhesive to the substrate with a temperature range of 284°F to 320°F as disclosed by Kay in the method of Iijima to provide a bonding with better chemical resistance and heat durability. (See Kay, Col 4, lines 52-54)

Regarding claim 13 and 14, Iijima discloses the article includes any various objects, which inherently includes plastic and paper. Schmitz et al discloses a security element, which includes a radiation curable adhesive layer for transferring the element onto any document of value such as banknotes, check, ID card, or share. (Col 4, lines 6-8 and Col 4, lines 34-37)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a transferable security element with radiation curable adhesive and transferring the element onto article such as banknotes, check, ID card, or share as disclosed by Schmitz et al in the method of Iijima as modified by the Kay to provide a security element for an article or object with increase forgery-proofness. (See Schmitz et al, Col 2, lines 65-67)



Art Unit: 1734

Regarding claim 15, Iijima discloses the adhesive includes a photopolymerization initiator. (Col 19, lines 32-34)

Regarding claim 16, Iijima discloses the adhesive polymer resins have a glass transition temperature of 30°C or higher, which corresponded to 86°F or higher. (Col 19, lines 20-23)

Regarding claims 26 and 54, Iijima discloses peeling away the carrier. (Col 26, lines 2-4)

Regarding claim 57, Iijima discloses the carrier includes polyester film such as polyethylene terephthalate (PET). (Col 12, line 62 to Col 13, line 5)

14. Claims 4, 21, 56, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (U.S. 6,797,210) in view of Kay (U.S. 6,364,983) and Schmitz et al (U.S. 6,491,324) as applied to claims 1 and 18 above, and further in view of Nakajima et al (U.S. 5,280,005).

Regarding claim 4 and 21, Iijima as modified above is silent as to the adhesive resin comprises vinyl group. However, using vinyl group for transfer of image or information is well known and conventional as shown for example by Nakajima et al. Nakajima et al discloses binder, i.e. adhesive for transferring the image on a support or carrier comprises vinyl chloride type, polyester type, acrylic resin type and includes UV curing resin, which are all equivalents. (Col 3, lines 6-19)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any resin such as vinyl type or acrylic type resin, which

Art Unit: 1734

are UV curable as disclosed by Nakajima in the method of Iijima as modified by Kay to provide any resin, which are all equivalents.

Regarding claim 56, Iijima discloses peeling away the carrier. (Col 26, lines 2-4)

Regarding claim 59, Iijima discloses the carrier includes polyester film such as polyethylene terephthalate (PET). (Col 12, line 62 to Col 13, line 5)

15. Claims 55 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (U.S. 6,797,210) in view of Kay (U.S. 6,364,983), Schmitz et al (U.S. 6,491,324), and Nakajima et al (U.S. 5,280,005) as applied to claim 4 above, and further in view of Schmitz et al (U.S. 6,491,324).

Regarding claim 55, Iijima discloses the carrier may or may not be subjected to release treatment (Col 9, lines 22-25), but is silent as to not peel the carrier from the functional film. However, not peeling the carrier from the transfer member or film is well known and conventional as shown for example by Schmitz et al. Schmitz et al discloses security element. The element includes a carrier, a separation layer, i.e. release coating, a cover layer, a magnetic layer, and a radiation curable adhesive (Col 4, lines 23-37), and in some cases to not provide a separation layer on the carrier, which leave the carrier on as a protective layer on the article such as document. (Col 4, lines 38-43)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to not peel the carrier from the transfer film or foil as disclosed by Schmitz et al in the method of Iijima as modified by combination of references to provide

Art Unit: 1734

additional layer as a protective layer on the article. (See Schmitz et al, Col 4, lines 38-39)

Regarding claim 58, Iijima discloses the carrier includes polyester film such as polyethylene terephthalate (PET). (Col 12, line 62 to Col 13, line 5)

16. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (U.S. 6,797,210) in view of Kay (U.S. 6,364,983) and Schmitz et al (U.S. 6,491,324) as applied to claim 20 above, and further in view of Saksa (U.S. 6,602,006).

Iijima as modified above is silent as to providing textual material on adhesive at a location, which will contact the substrate when the film is applied to the substrate.

However, printing graphic and text on the adhesive a receptor media is well known and conventional as shown for example by Saksa. Saksa discloses a method of printing image onto an adhesive surface of a transparent receptor media. The method includes providing a receptor media with an adhesive layer and transparent film on a carrier (Col 4, lines 4-6 and Col 4, lines 17-20), printing directly onto the adhesive layer with an inkjet printer to form text and graphic (Col 4, lines 48-60), and applying the image to an object and in contact with object. (Col 5, lines 8-17)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to print onto the adhesive layer as disclosed by Saksa in the method of Iijima as modified by Kay to allow personalizing an item with an image or text and protecting the image or text from moisture and scuffing. (See Saksa, Col 3, lines 29-38)

Art Unit: 1734

17. Claims 60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (U.S. 6,797,210) in view of Kay (U.S. 6,364,983) and Schmitz et al (U.S. 6,491,324) as applied to claim 1 above, and further in view of Janke et al (U.S. 5,726,216).

Iijima as modified above is silent as to radiation curable adhesive includes solid heat sensitive resin adhesive. However, providing a heat sensitive resin adhesive in the radiation curable resin such as epoxy is well known and conventional as shown for example by Janke et al. Janke et al discloses an epoxy resin system. The system includes radiation curable epoxy resin and includes a toughening agent such as thermoplastic, epoxy containing thermoplastic oligomer, i.e. heat sensitive resin adhesive, rubber, and elastomer (Col 2, lines 66 to Col 3, line 8), which do not include any radiation curable functional groups.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide thermoplastic or heat sensitive resin adhesive in the radiation curable epoxy resin as disclosed by Janke et al in the method of Iijima as modified by Kay to provide a toughened epoxy system, which is less brittle. (See Janke et al, Col 2, lines 35-36 and Col 2, lines 52-54)

18. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (U.S. 6,797,210) in view of Kay (U.S. 6,364,983) and Janke et al (U.S. 5,726,216) as applied to claim 61 above, and further in view of Stoner et al (U.S. 5,652,436) and Kopf et al (U.S. 4,559,247).

Art Unit: 1734

Iijima as modified above is silent as to thermoplastic resin is a caprolactone modified phenoxy resin. However, providing phenoxy resin as a thermoplastic resin is well known and conventional as shown for example by Stoner et al. Stoner et al discloses binder for transfer substrate includes epoxies, acrylic, polyester, phenoxy, rubber, and elastomers (Col 5, line 56 to Col 6, line 10), which are all equivalents.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide resin such as epoxies, phenoxy, rubber and elastomers as the binder for the transfer substrate as disclosed by Stoner et al in the method of Iijima as modified by the combination of references to provide any resin for the binder, which are all equivalents. Iijima as modified by the combination of references is silent as to the phenoxy resin is modified by caprolactone. However, modifying phenoxy resin with caprolactone is well known and conventional as shown for example by Kopf et al. Kopf et al disclose a method of forming caprolactone grafted phenoxy. The method includes grafting a caprolactone to a hydroxyalkoxy phenoxy polyether to provide a grafted phenoxy resin. (Col 6, lines 7-12)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a caprolactone grafted or modified phenoxy resin as disclosed by Kopf et al in the method of Iijima as modified by the combination of references to provide a binder or adhesive with improved impact resistance, hardness, gloss, drawability and deformability. (See Kopf et al, Col 1, lines 59-61)

Art Unit: 1734

***Response to Arguments***

19. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P. Chan whose telephone number is 571-272-1225. The examiner can normally be reached on Monday-Friday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher A. Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Chan Sing P*

spc

*CA Fiorilla*

**CHRIS FIORILLA**  
**SUPERVISORY PATENT EXAMINER**

*Au 1734*